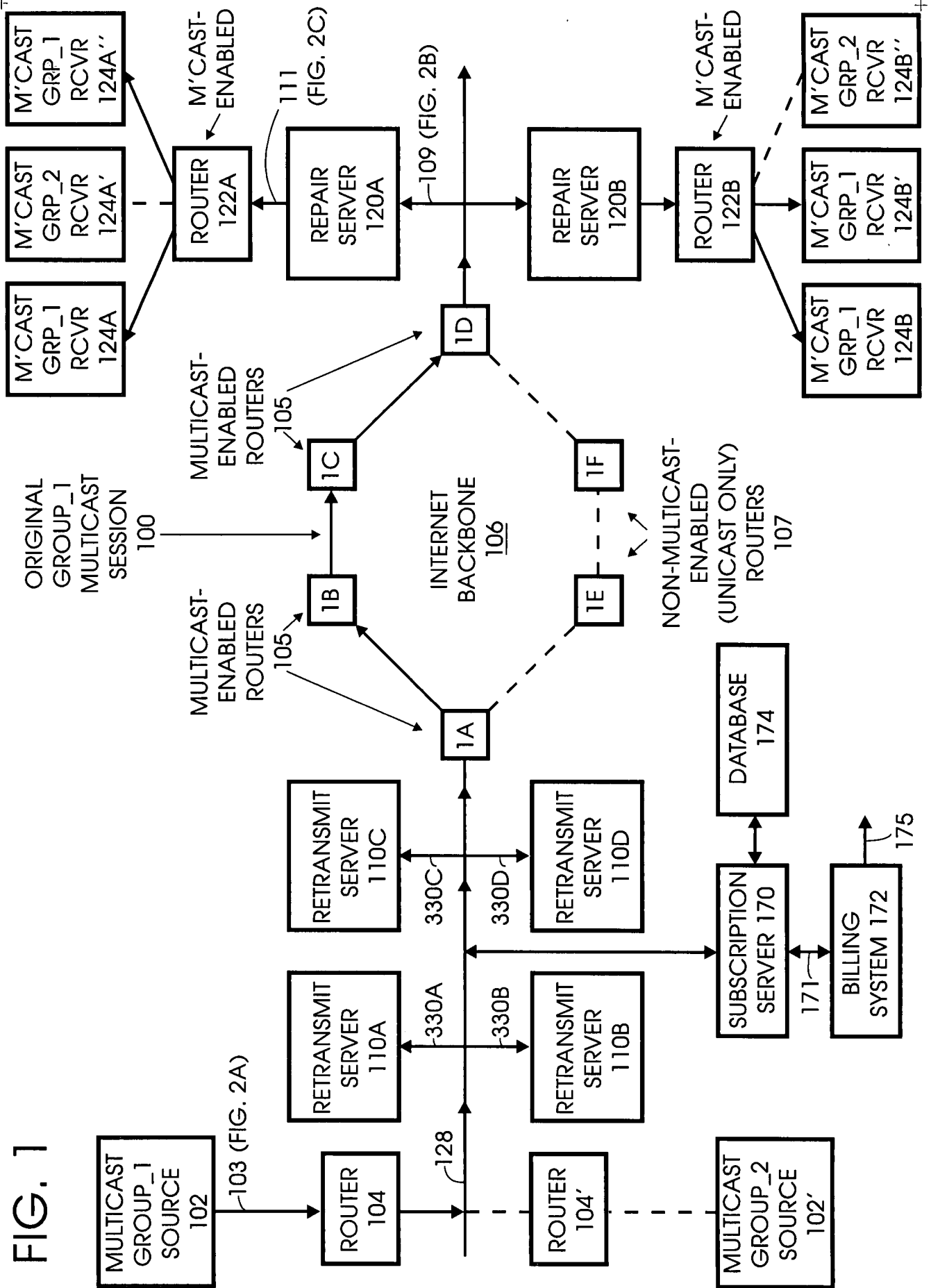


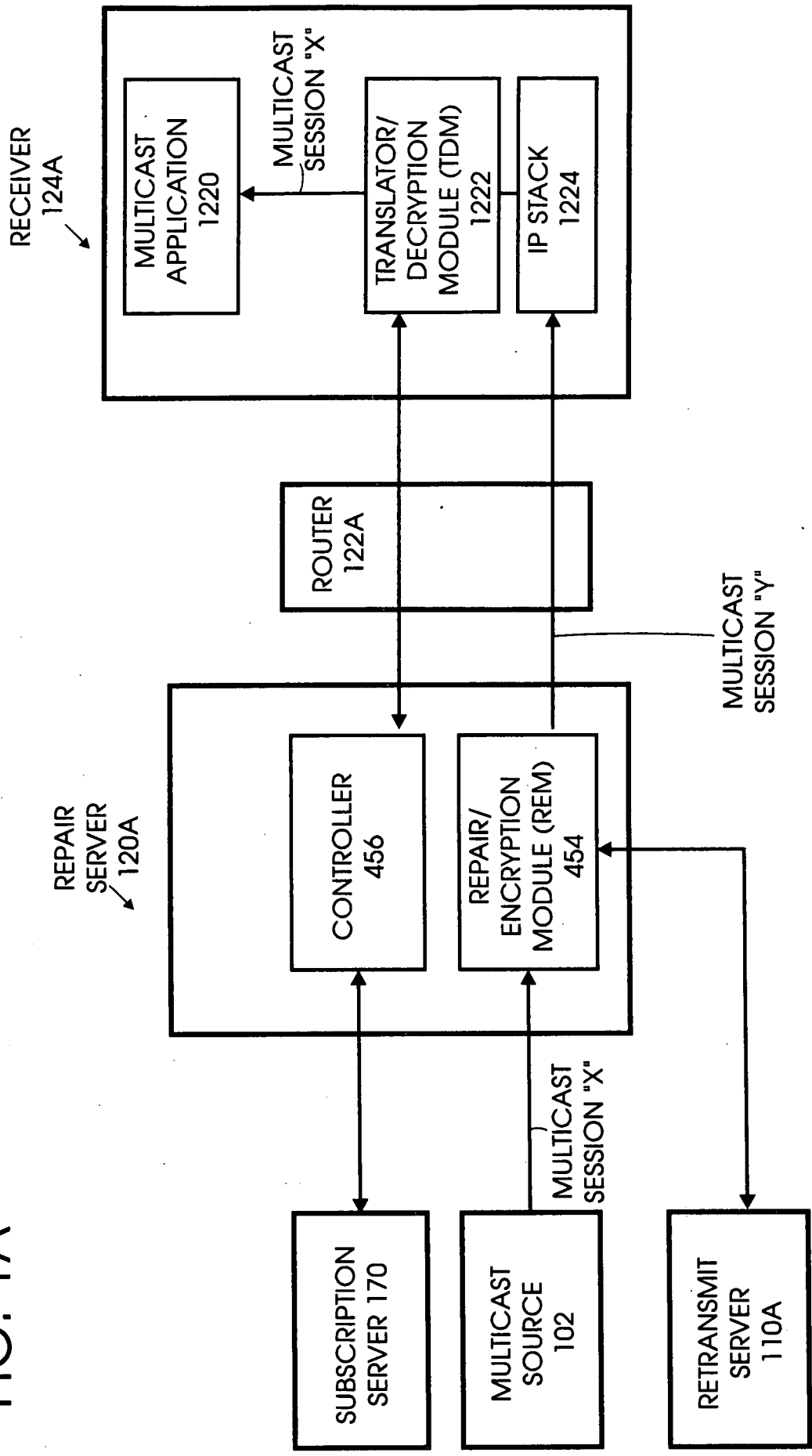
6567929

FIG. 1



6567929" FIG. 1

FIG. 1A



66720" T945E50

FIG. 1B

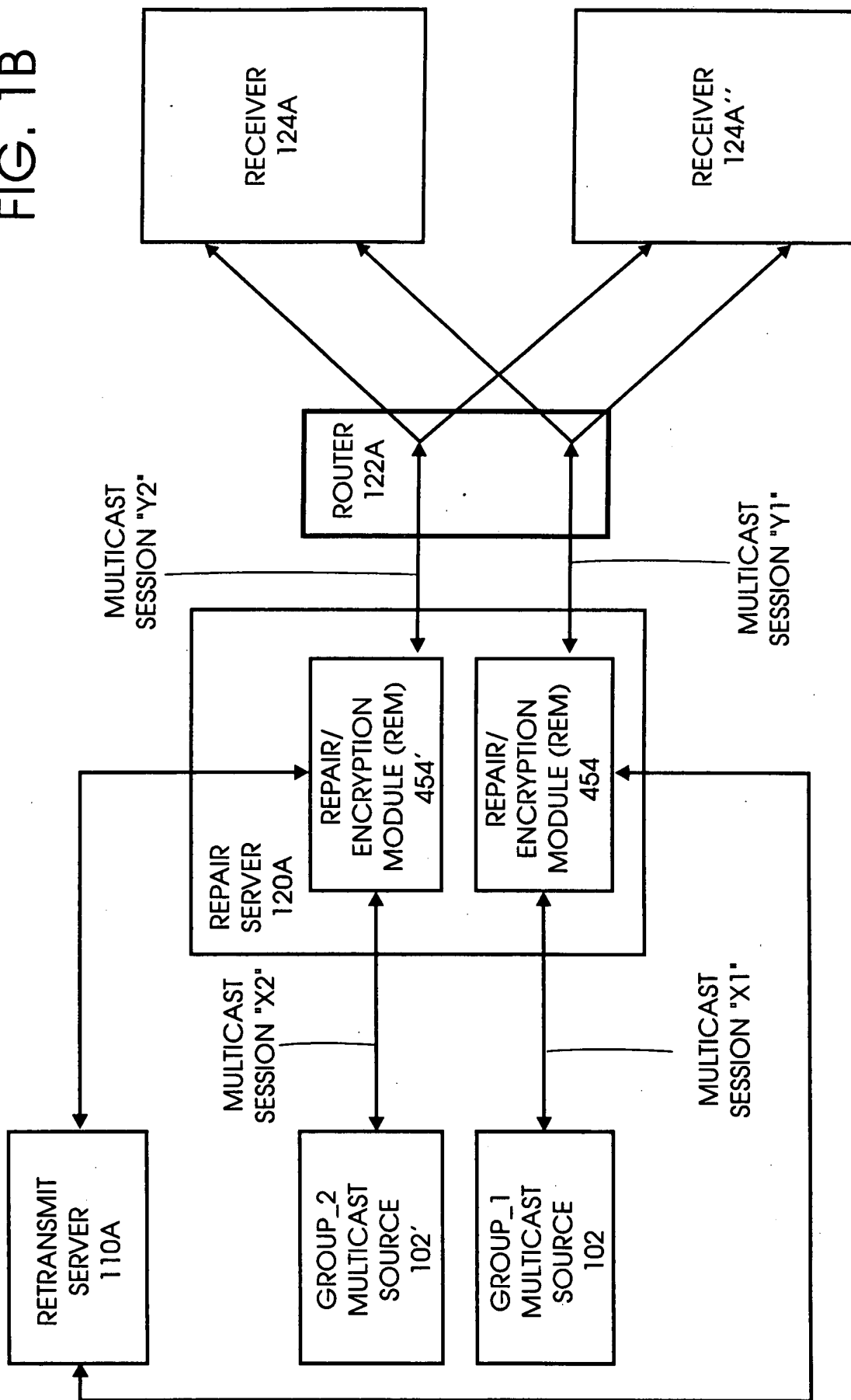


FIG. 1C

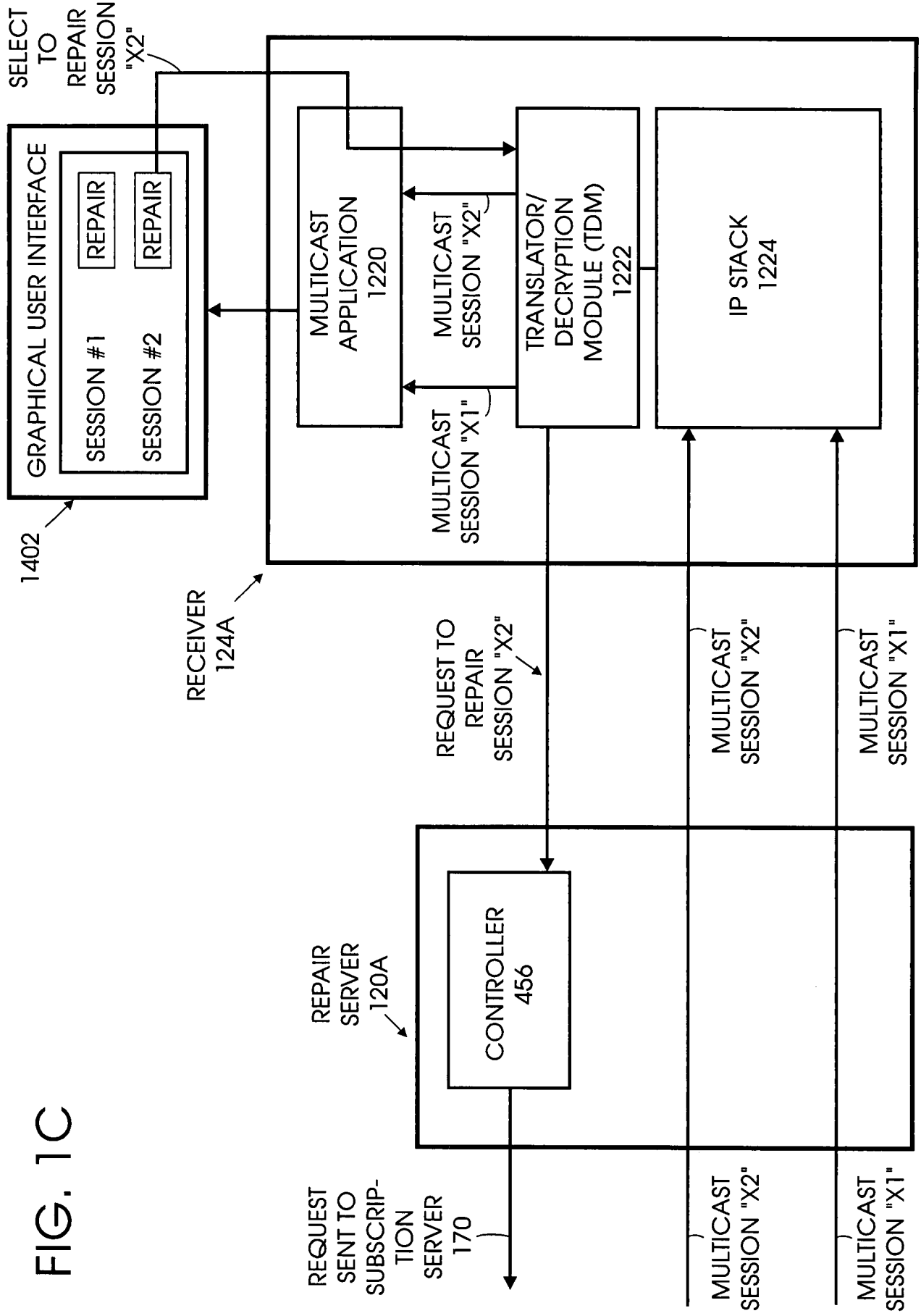
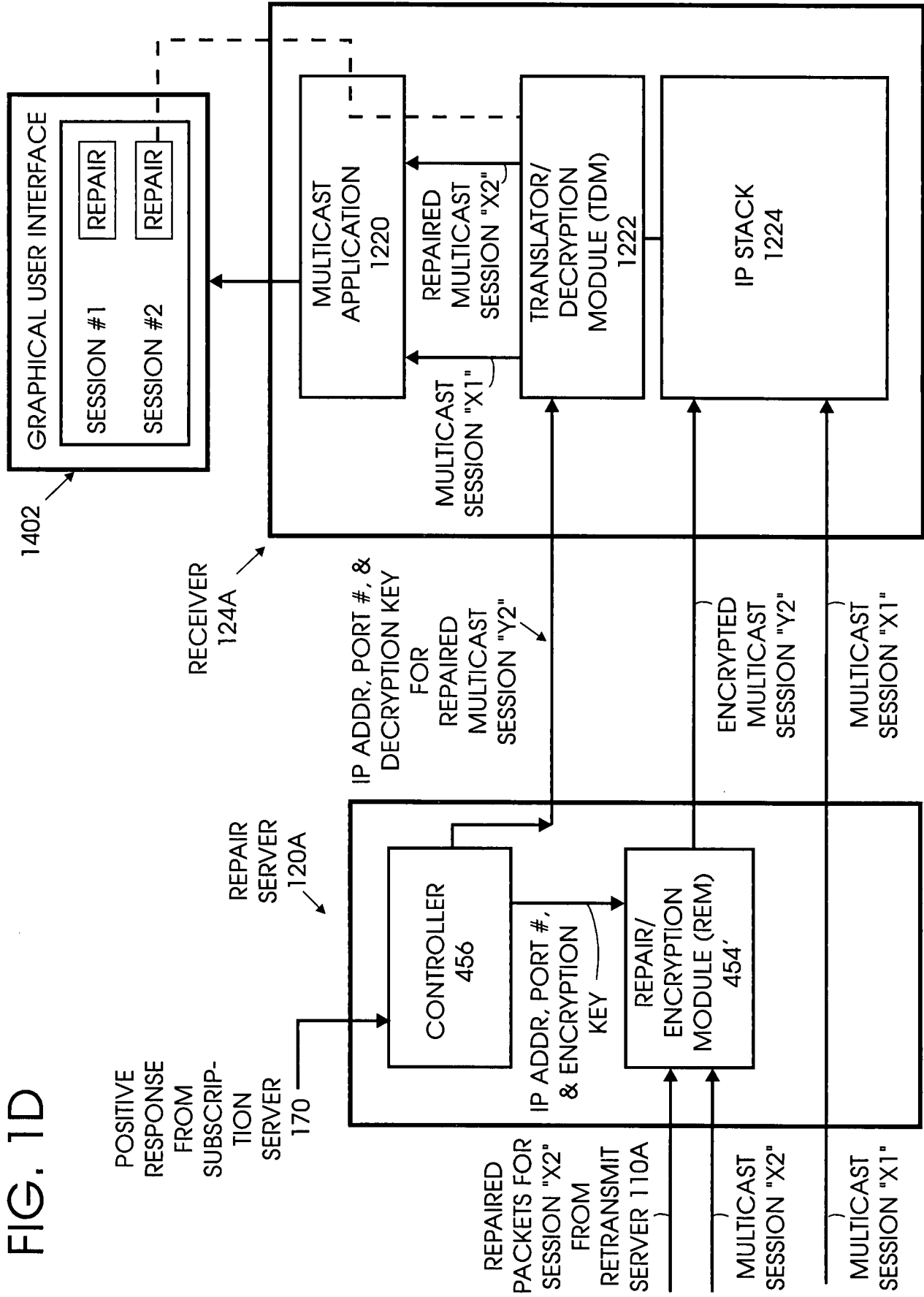


FIG. 1D



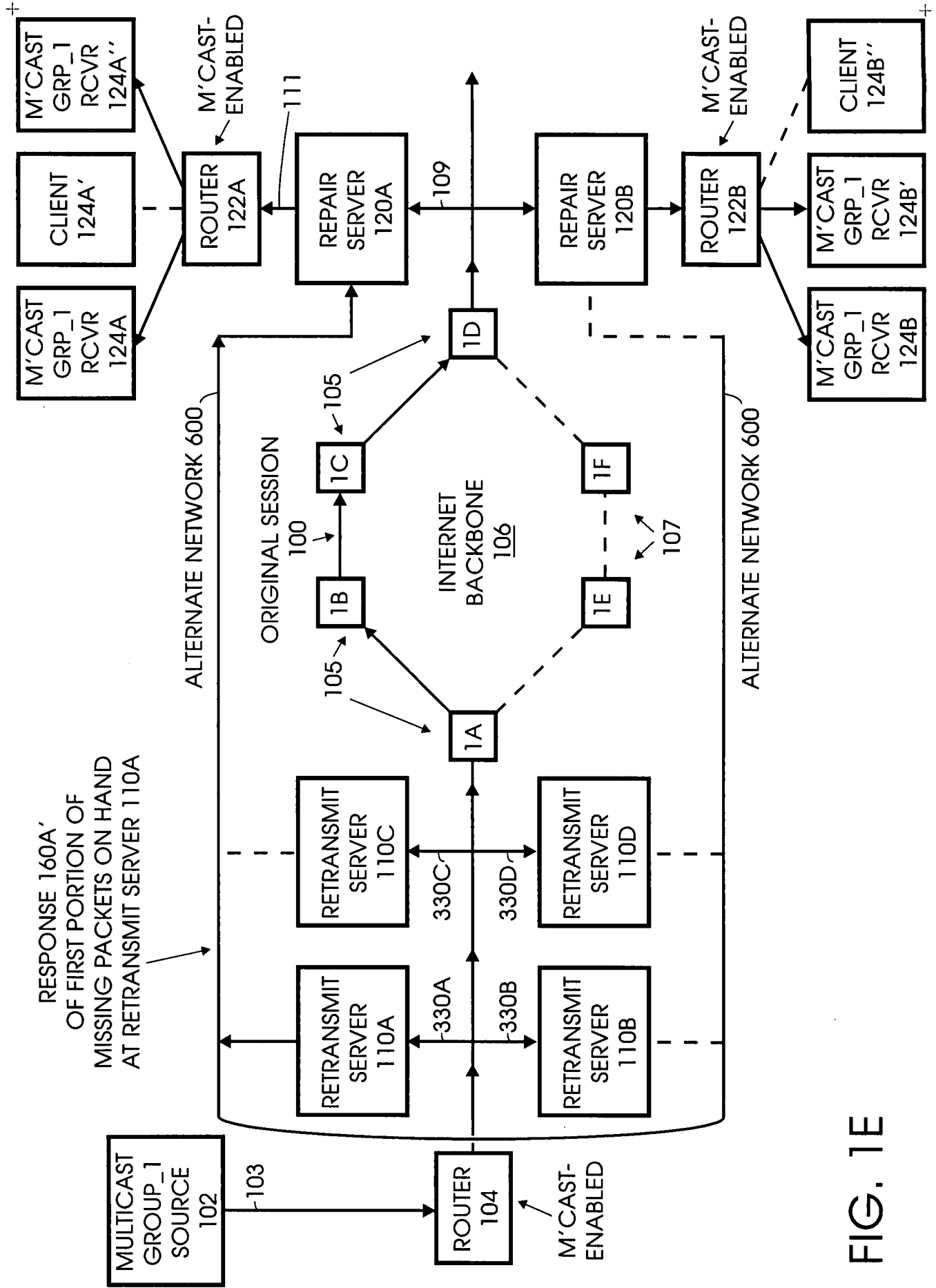


FIG. 1E

FIG. 2A

PACKETS CURRENTLY BEING OUTPUT BY  
MULTICAST GROUP\_1 SOURCE 102



IP HEADER			UDP HEADER		RTP MESSAGE		
00	SOURCE IP ADDRESS	DESTINATION IP ADDRESS	SOURCE PORT	DEST. PORT	SEQUENCE NUMBER	TIME STAMP	DATA
	RETRANS. SERVER 110A	MULTICAST GROUP_1 ADDRESS	CIRC. BUFFER 130A	DELAY BUFFER 140A			

PACKET 285 →

FIG. 2B



PACKETS CURRENTLY BEING DELIVERED TO DELAY BUFFER 140A

FIG. 2C



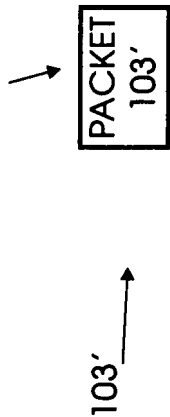
PACKETS CURRENTLY BEING DELIVERED TO ROUTER 122A  
WITH A 3-SECOND DELAY



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 2D

RTCP SOURCE DESCRIPTION PACKET PERIODICALLY OUTPUT BY  
MULTICAST GROUP\_1 SOURCE 102



IP HEADER			UDP HEADER		RTCP SOURCE DESCRIPTION			
00	SOURCE IP ADDRESS	DESTINATION IP ADDRESS	IP OPTIONS	SOURCE PORT	DEST. PORT	CNAME	TOOL	NOTE
	RETRANS. SERVER 110A	MULTICAST GROUP_1 ADDRESS		MSG. PROC. 132A	MSG. PROC. 142	GROUP_1 SOURCE 102	MPEG2	"VOICE TRACK IS 5 CHANNELS"

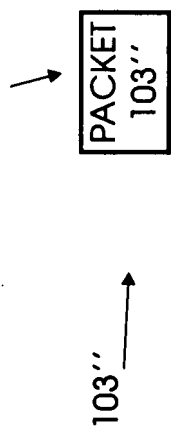
PACKET 103' →

66ET 20" T 34E5E60

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 2E

RTCP SENDER REPORT PACKET PERIODICALLY OUTPUT BY  
MULTICAST GROUP\_1 SOURCE 102

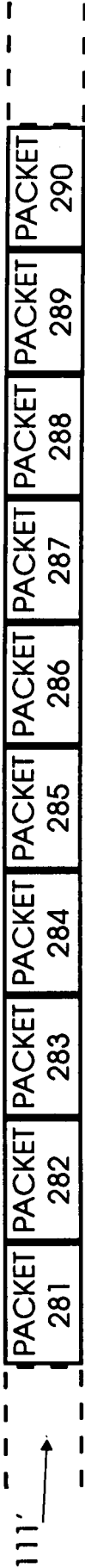


IP HEADER				UDP HEADER		RTCP SENDER REPORT			
00	SOURCE IP ADDRESS	DESTINATION IP ADDRESS	IP OPTIONS	SOURCE PORT	DEST. PORT	00	SENDER'S ID	SENDER'S PACKET COUNT	SENDER'S OCTET COUNT
	RETRANS. SERVER 110A	MULTICAST GROUP_1 ADDRESS		MSG. PROC. 132A	MSG. PROC. 142		GROUP_1 SOURCE 102	290	290,000

PACKET 103'''

FIG. 2F

REPAIRED MULTICAST SESSION 111'  
WHICH APPEARS TO RECIPIENT RECEIVERS 124A  
TO BE THE SAME MULTICAST GROUP\_1 SESSION  
FROM SOURCE 102

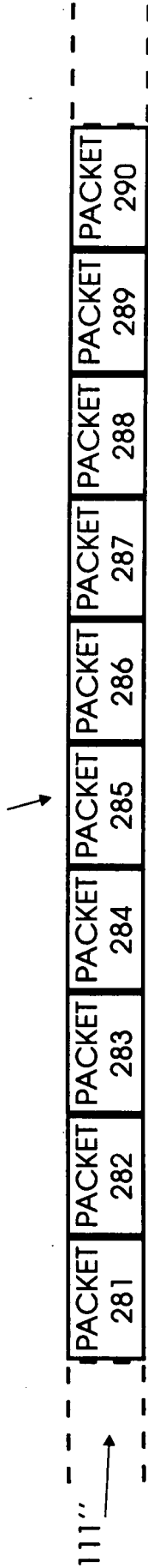


IP HEADER			UDP HEADER		RTP MESSAGE		
00	SOURCE IP ADDRESS	DESTINATION IP ADDRESS	SOURCE PORT	DEST. PORT	00	SEQUENCE NUMBER	TIME STAMP
	REPAIR SERVER 120A	MULTICAST GROUP_1 ADDRESS	DELAY BUFFER 140A	RCVR 124		285	090235
					DATA		

PACKET 285

FIG. 2G

REPAIRED MULTICAST SESSION 111"  
WHICH HAS A DIFFERENT MULTICAST ADDRESS THAN  
THAT OF THE ORIGINAL GROUP\_1 SESSION FROM SOURCE 102



IP HEADER			UDP HEADER		RTP MESSAGE		
SOURCE IP ADDRESS	DESTINATION IP ADDRESS	IP OPTIONS	SOURCE PORT	DEST. PORT	SEQUENCE NUMBER	TIME STAMP	DATA
REPAIR SERVER 120A	REPAIRED MULTICAST SESSION ADDRESS		DELAY BUFFER 140A	RCVR 124	285	090235	

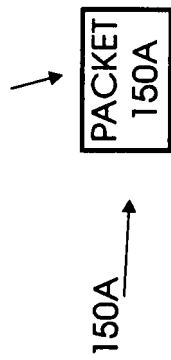
PACKET 285

66E720" T945E60

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 2H

UNICAST REQUEST 150A  
TO FIRST RETRANSMIT SERVER 110A FOR MISSING PACKETS

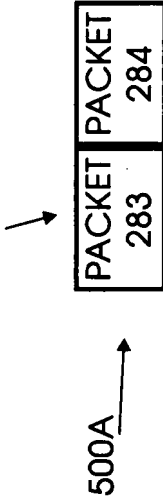


IP HEADER				UDP SEGMENT		REQUEST SEGMENT
000	SOURCE IP ADDRESS	DESTINATION IP ADDRESS	IP OPTIONS	SOURCE PORT	DEST. PORT	DATA  MISSING SEQUENCE NUMBERS 283 - 288
	REPAIR SERVER 120A	RETRANS. SERVER 110A		MSG. PROC. 142A	CIRC. BUFFER 130A	

PACKET 150A

FIG. 2I

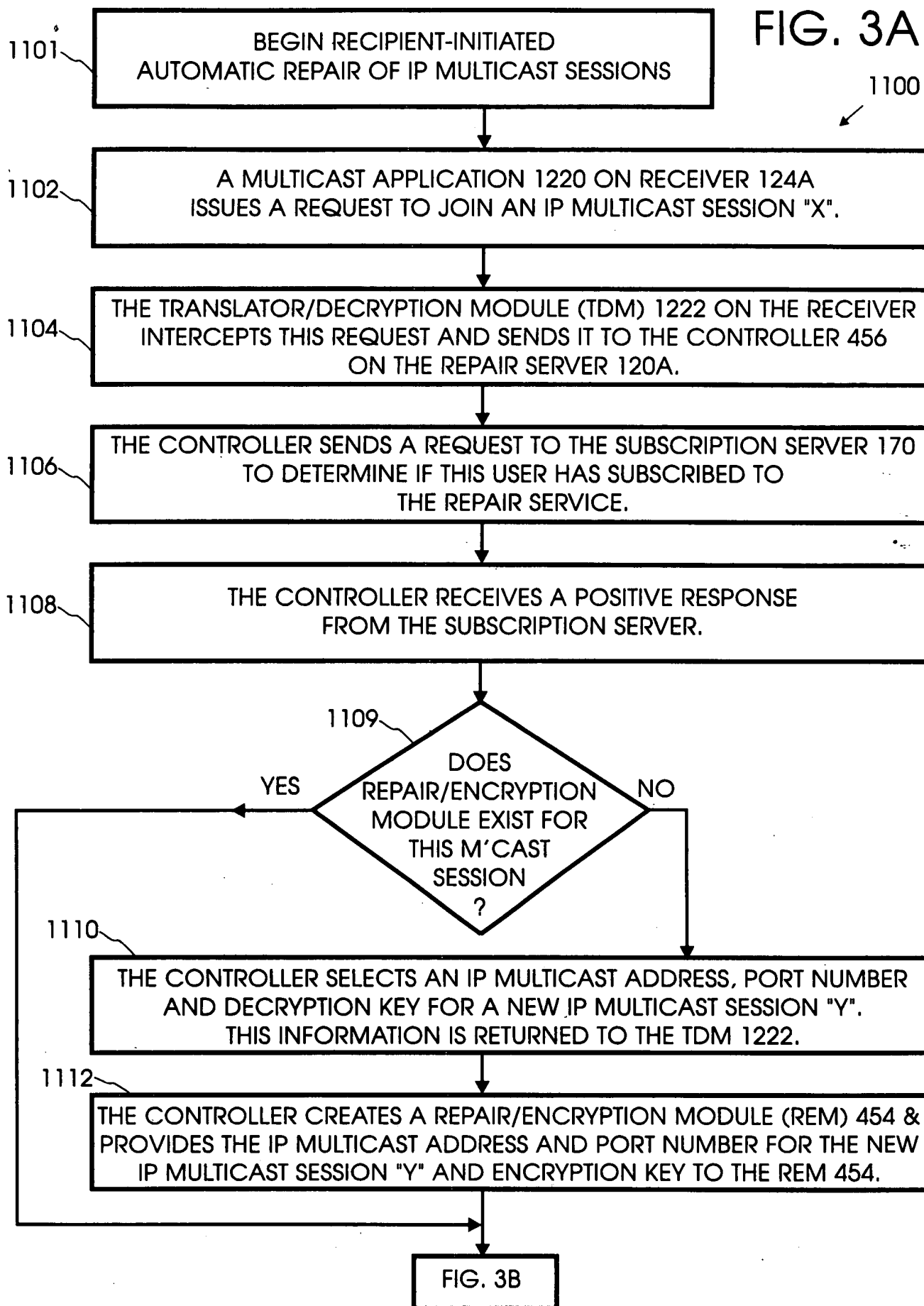
UNICAST RESPONSE 160A  
OF FIRST PORTION OF MISSING PACKETS ON HAND  
AT RETRANSMIT SERVER 110A



IP HEADER			UDP SEGMENT			RESPONSE SEGMENT
ooo	SOURCE IP ADDRESS	DESTINATION IP ADDRESS	SOURCE PORT	DEST. PORT	SEQUENCE NUMBER	DATA
	RETRANS. SERVER 110A	REPAIR SERVER 120A	CIRC. BUFFER 130A	DELAY BUFFER 140A	283	

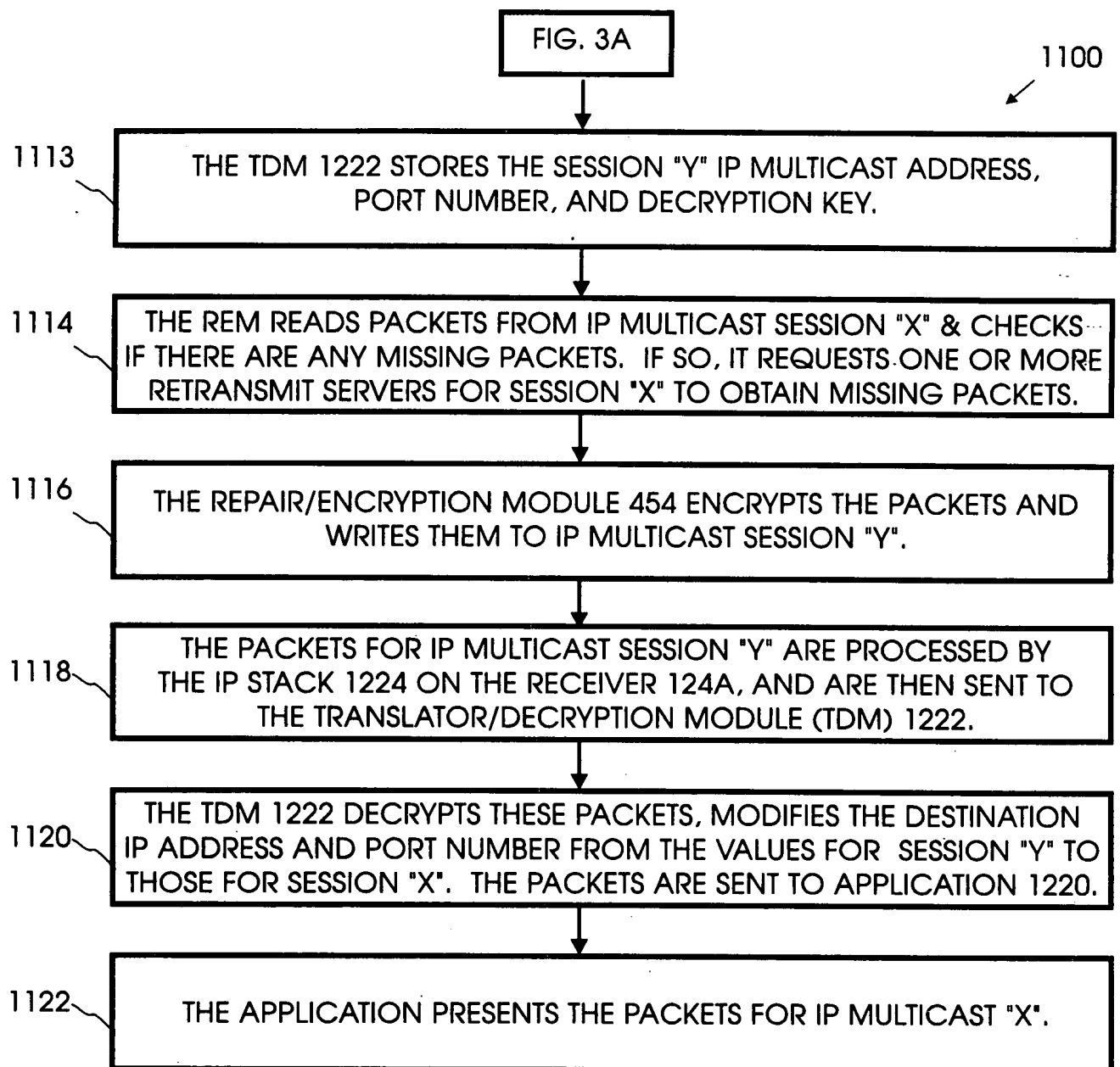
PACKET 283

FIG. 3A



09353461-021399

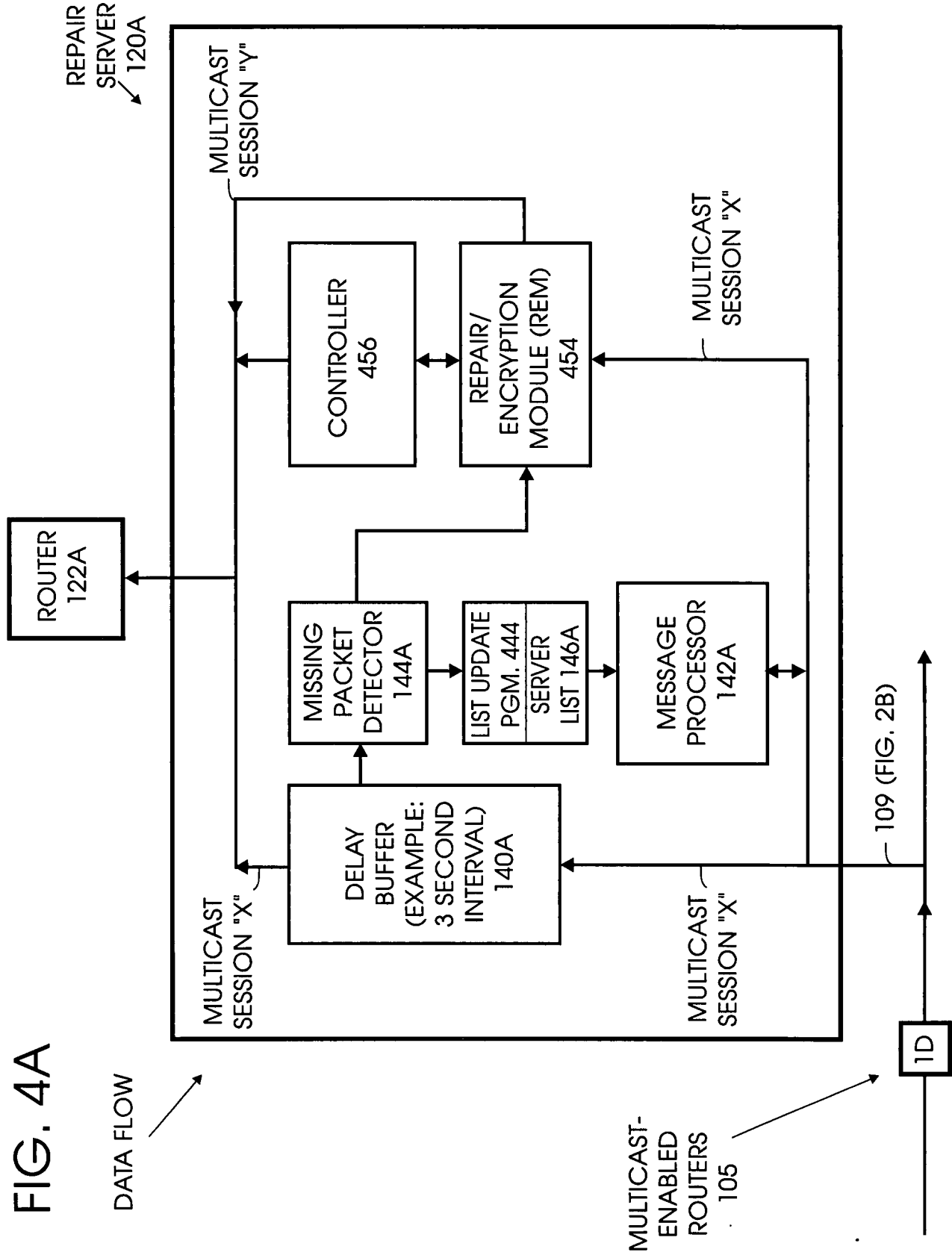
FIG. 3B



09353461.071399



FIG. 4A



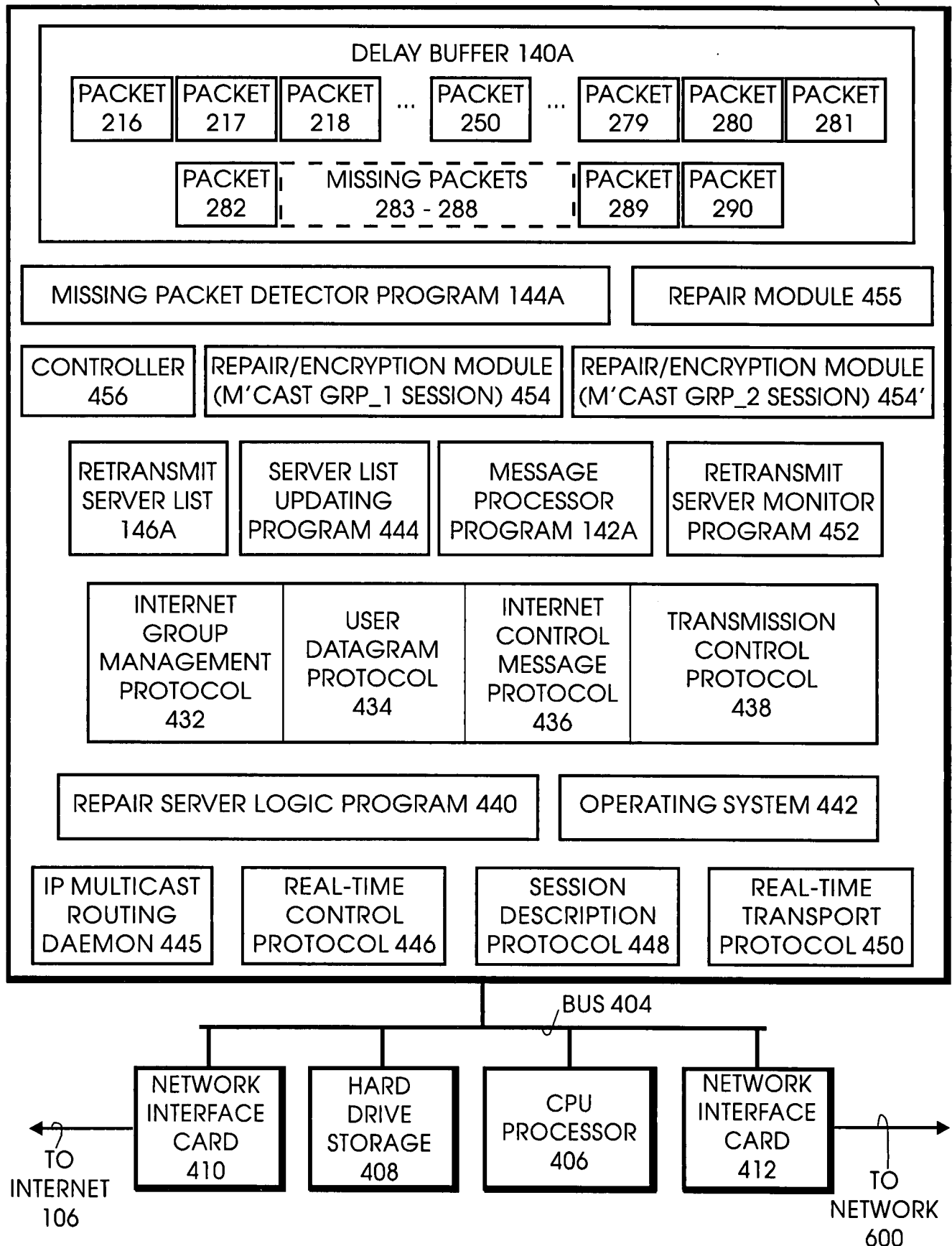
66E720" F44E5E60

FIG. 4B

REPAIR SERVER

120A

MEMORY 402



66220 T 34560